Project Fact Sheet

CEC / SMUD Regen Project 1.5 Assessment of Worst-Case Weather Conditions

GOALS

- Develop data that will ultimately make it possible for PV to be used in mission-critical applications without being connected to the grid.
- Develop data that will make it possible to correctly size and evaluate renewable-based air-conditioning equipment.
- Develop weather data that can be used to determine:

1. The impact of winter weather on the performance of mission-critical PV systems, such as: traffic signals, transportation-related signage, retail signage, rural signage, streetlights, and parking lot lights.
2. The impact of summer weather on the sizing and performance of air-conditioning equipment of various types, including conventional and renewable.

PROJECT DESCRIPTION

Historical weather records will be analyzed to determine worst-case weather conditions for photovoltaic systems and air-conditioning systems. For PV systems, cloudiness from storms and fog will be examined. For cooling systems, a combination of maximum air temperature and humidity will be examined

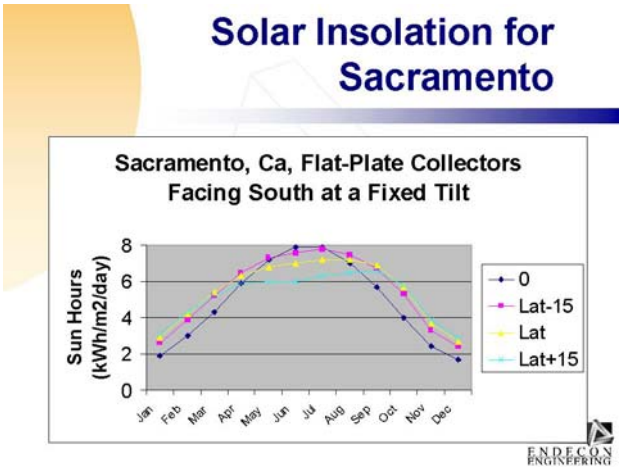
BENEFITS TO CALIFORNIA

The results will allow SMUD to:

- Correctly size PV arrays and battery storage systems for mission-critical applications;
- Design systems that can meet participants' requirements for minimum downtime due to cloudiness
- Correctly size and evaluate solar-based air-conditioning systems.

FUNDING AMOUNT

Commission $27,000
Match $0



PROJECT STATUS

The bidding process to identify a contractor is currently underway. The possibility of match funding from Sandia national Labs is being investigated.

FOR MORE INFORMATION

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